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09/864,184	05/25/2001	Kazutoshi Haraguchi	010676	2872

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EXAMINER

YOON, TAE H

ART UNIT	PAPER NUMBER
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1714

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DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/864164

Applicant(s)

Haraguchi, et al

Examiner

T. Yoon

Group Art Unit

1714

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-25 is/are pending in the application.
- Of the above claim(s) 13-21 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-12 and 22-25 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some\* ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_ ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 1714

### **DETAILED ACTION**

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12 and 22-25, drawn to an organic/inorganic hybrid hydrogel, classified in class 523, subclass 200+.
- II. Claims 13-21, drawn to a method of making said hydrogel, classified in class 526, subclass 89+.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as blending a water swelling clay and a solution of a water soluble polymer.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr/ Hanson on April 9, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12 and 22-25.

Affirmation of this election must be made by applicant in replying to this Office action.

Art Unit: 1714

Claims 13-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "derivatives" in claims 4 and 23 is indefinite in not specifying particular functional groups or substituents. The recited language "[a]n aqueous solution absorbent material ----- and said dry gel body of the organic/inorganic hybrid hydrogel according to claim 10" is confusing since the claim is in a form of an independent claim (hydrogel dispersed in water) and dependent claim (hydrogel according to claim 10) together. Also, the hydrogel dispersed in water forms a dispersion, not a solution.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) 1) an application for patent, published under section 122(b), by another filed in the United

Art Unit: 1714

States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a); or

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 22-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Murakami et al (US 4,418,163).

Murakami et al teach water absorbing comprising inorganic powder encapsulated with a crosslinked polymer in abstract. Clay (col. 2, line 50), a water absorption of 20 to 800 times and a hydrophilic polymer of a carboxylic acid amide (col. 3, lines 4-33), composite powder (example 1) and a dispersion thereof (col. 7, line 16) are also taught. The instantly recited properties are

Art Unit: 1714

inherent, and applicant failed to show otherwise. An invention in a product-by-process claim is a product, not a process. See *In re Brown*, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and *In re Thorpe*, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985). Since the PTO does not have equipments to conduct the test, it is fair to require applicant to shoulder the burden of proving that his hydrogels differ from those of Murakami et al. *In re Best*, 195 USPQ 430,433 (CCPA 1977). The preamble, an electrophoresis medium, alone has little probative value.

Thus, the instant invention lacks novelty.

Claims 1-12 and 22-25 are rejected 35 U.S.C. 103(a) as obvious over Murakami et al (US 4,418,163) in view of Sassi et al (US 5,883,211) or Perrault et al (US 6,347,246).

Sassi et al and Perrault et al teach the use of hydrogels in electrophoretic applications in abstract and examples.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the hydrogel of Murakami et al in electrophoretic applications of Sassi et al or Perrault et al since an electrophoresis medium utilizing a hydrogel is well known in the art.

Claims 1-7, 9-12 and 22-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Libor et al (US 4,600,744 or EP 0 335 653).

The examiner points out US'744 since both are similar.

Art Unit: 1714

Liboret al teach water absorbing hydrogels in abstract and examples. Clay and hydrogels (col. 4, line 18-43), hydrophilic polyacrylamides (table 1), composite powder (example 1) and a dispersion thereof (col. 7, line 16) are also taught. The instantly recited properties are inherent, and applicant failed to show otherwise. The preamble, an electrophoresis medium, alone has little probative value.

Thus, the instant invention lacks novelty.

Claims 1-7, 9-12 and 22-25 are rejected under 35 U.S.C. 103(a) as obvious over Libor et al (US 4,600,744 or EP 0 335 653) in view of Sassi et al (US 5,883,211) or Perrault et al (US 6,347,246).

Sassi et al and Perrault et al teach the use of hydrogels in electrophoretic applications in abstract and examples.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the hydrogel of Libor et al in electrophoretic applications of Sassi et al or Perrault et al since an electrophoresis medium utilizing a hydrogel is well known in the art.

Claims 1-7, 9-12 and 22-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kajita (US 5,556,547).

Kajita teaches water absorbing hydrogels in abstract and examples. Clay (col. 6, lines 19-34 and examples), hydrogels (col. 5, line 18-53 and examples) and polyacryl amides (col. 35, line

Art Unit: 1714

37 to col. 36, line 33) are also taught. The instantly recited properties are inherent, and applicant failed to show otherwise. The preamble, an electrophoresis medium, alone has little probative value.

Thus, the instant invention lacks novelty.

Claims 1-7, 9-12 and 22-25 are rejected under 35 U.S.C. 103(a) as obvious over Kajita (US 5,556,547) in view of Sassi et al (US 5,883,211) or Perrault et al (US 6,347,246).

Sassi et al and Perrault et al teach the use of hydrogels in electrophoretic applications in abstract and examples.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the hydrogel of Kajita in electrophoretic applications of Sassi et al or Perrault et al since an electrophoresis medium utilizing a hydrogel is well known in the art.

Claims 1-7, 9-12 and 22-25 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tsipursky et al (US 5,998,528).

Tsipursky et al teach water absorbing hydrogels comprising a water soluble polymer intercalated clay mineral in abstract and examples and at col. 1, line 59. Clay, hydrogels and water contents thereof (col. 5, line 60 to col. 6, line 44 and examples) and polyacryl amides (col. 36, line 52 to col. 38, line 62) are also taught. The instantly recited properties are inherent, and applicant failed to show otherwise. The preamble, an electrophoresis medium, alone has little



Art Unit: 1714

probative value. Tsipursky et al also teach intercalation of monomers at col. 5, line 67, and thus a polymerization of such monomers would be obvious.

Thus, the instant invention lacks novelty.

Claims 1-7, 9-12 and 22-25 are rejected under 35 U.S.C. 103(a) as obvious over Tsipursky et al (US 5,998,528) in view of Sassi et al (US 5,883,211) or Perrault et al (US 6,347,246).

Sassi et al and Perrault et al teach the use of hydrogels in electrophoretic applications in abstract and examples.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the hydrogel of Tsipursky et al in electrophoretic applications of Sassi et al or Perrault et al since an electrophoresis medium utilizing a hydrogel is well known in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Application/Control Number: 09/864,184

Page 9

Art Unit: 1714

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY/April 10, 2003

A handwritten signature in cursive script, appearing to read 'Tae H. Yoon'.

TAE H. YOON  
PRIMARY EXAMINER